Claims

1. A method using an image sensor for analyzing color deviations of images, wherein the image signal received from the image sensor is analyzed pixel by pixel, characterized by the following method steps:

- an image sensor signal for each color channel (01, 02, 03) is generated from color channels (01, 02, 03),
- linkage of the image sensor signal of a first color channel (01) with the image sensor signal of a second color channel (02) by means of a first calculation specification (04), from which an output signal (12) of a first compensation color channel (07) is generated, as well as linkage of the image sensor signal of a third color channel (03) with the image sensor signals of the first (01) and the second color channel (02) by means of a second calculation specification (06), from which an output signal (13) of a second compensation color channel (08) is generated,
- classification (23) of the output signals (12, 13) of the compensation color channels (07, 08).

2. A method using an image sensor for analyzing color deviations of images, wherein the image signal received from the image sensor is analyzed pixel by pixel, characterized by the following method steps:

- an image sensor signal for each color channel (01, 02, 03) is generated from color channels (01, 02, 03),

- the image sensor signals of color channels (01, 02, 03) are linked into a new first color channel (07) and a new second color channel (08),

- the first color channel (07) corresponds to the red/green receptive field of the human eye,

- the second color channel (08) corresponds to the blue/yellow field of the human eye.

3. The method in accordance with claim 1, characterized in that the first new color channel (07) corresponds to the red/green receptive field of the human eye, and the second new color channel (08) corresponds to the blue/yellow receptive field of the human eye.

4. The method in accordance with claim 1 or 2, characterized in that the three color channels (01, 02, 03) correspond to the basic colors of the RGB model, namely R=red, G=green and B=blue.

5. The method in accordance with claim 1 or 2, characterized in that the spectral sensitivity of each color channel (01, 02, 03) is adjustable.

6. The method in accordance with claim 1 or 2, characterized in that the first calculation specification (04) provides the formation of a weighted difference of the image sensor signal of the second color channel (02) from the image sensor signal of the first color channel (01), and/or the second calculation specification (06) provides the

formation of a weighted difference of the image sensor signal of the first color channel (01) and the second color channel (02) from the image sensor signal 0f the third color channel (03).

7. The method in accordance with claim 1 or 2, characterized in that at least one signal of at least one compensation color channel (07, 08) is subjected prior to and/or after linkage to a transformation (09), in particular a non-linear transformation (09) by means of a calculation specification (04, 06).

8. The method in accordance with claim 1 or 2, characterized in that each image sensor signal taken into consideration during a linkage is weighted with a coefficient (11) prior to and/or following the transformation (09).

10. The method in accordance with claim 1 or 2, characterized in that in at least one compensation color channel (07, 08) at least one signal is filtered by means of a low pass filter (16), in particular a Gauss low pass filter.

11. The method in accordance with claim 1 or 2, characterized in that the method has a learning mode (17) and an inspection mode (18), wherein in the learning mode (17) the reference data values (19', 19'') created by at least one reference image (21) of the two compensation color channels (07, 08) are stored in a reference data memory, and wherein in the inspection mode (18) the output signals (12, 13) of

the two compensation color channels (07, 08) created by an inspection image (22) are compared pixel by pixel with the reference data values (19', 19'') of the reference data memory.

11. The method in accordance with claim 10, characterized in that the comparison is performed by means of a classification system (23).

12. The method in accordance with claim 11, characterized in that linear and/or non-linear classification systems (23), in particular threshold value classifiers, Euclidic distance classifiers, Bayes classifiers, fuzzy classifiers, or artificial neuronic networks, are used.

13. The method in accordance with claim 10, characterized in that reference data values (19', 19'') stored in the reference data memory of each pixel are generated by the analysis of several reference images (21), by means of which a tolerance window is determined for the reference data values (19', 19'').

14. The method in accordance with claim 1 or 2, characterized in that print images are analyzed by means of the method.